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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/822,417 | 04/12/2004 | Norman Hahn | 081276-9153-00 | 2571 |
| 34044 7590 11/15/2007 MICHAEL BEST & FRIEDRICH LLP 100 EAST WISCONSIN AVENUE MILWAUKEE, WI 53202 | | | EXAMINER OLSEN, KAJ K | |
| | | | ART UNIT 1795 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/822,417

Applicant(s)

HAHN ET AL.

Examiner

Kaj K. Olsen

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4-12-04; 8-10-05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- ☐ Notice of Informal Patent Application
- ☐ Other: ____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On pp. 5 and 6 of the specification, the sentences referring to application number 10/610,479 should be amended to state that this application has matured into USP 6,843,105.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-9, 13-15, 17-21, and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Stein, Sr. et al (USP 6,527,573).
4. Stein discloses an insulation bushing assembly for use with an exhaust gas sensor comprising an insulation bushing 26 including a passageway 22 defining a surface (100, 102) and a contact plate assembly having a contact plate 92 coupled with the insulation bushing and a resilient member (remainder of element 20) extending from the contact plate. Said resilient member engages the surface of the passageway during insertion such that the member is

deflected by the surface from an undeflected position to a deflected position. Compare fig. 4 and 5 and see col. 2, ll. 39-67.

5. With respect to the surface comprising the specified first and second surfaces, see fig. 4 and 8 showing two distinct surfaces for the passageway where these surfaces form an oblique angle.

6. With respect to the specified contact wire and compression tab, Stein discloses wire 14 that would read on the defined contact wire with element 20 reading on the defined compression tab. See fig. 3-5. Alternatively, element 20 of Stein reads on the defined contact wire for those claims not requiring a contact wire separate from a compression tab (e.g. claims 6-8). Element 20 has an apex that is engagable with the surface of the passage (compare fig. 4 and 5).

7. With respect to the exhaust gas sensor claims (those limitations not covered above), Stein discloses a sensor housing 30 with a sensor element 28 at least partially within the housing. See fig. 1 and col. 2, ll. 39-67.

8. With respect to the method of assembling claims, Stein discloses providing the specified insulation bushing and contact plate assembly (see discussion above), and further discloses inserting the resilient member into the passageway (fig. 4), engaging the resilient member with the surface and deflecting the resilient member from an undeflected position (fig. 4) to a deflected position (fig. 5) with respect to the contact plate.

9. Claims 1, 5-13, and 17-31 are rejected under 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over applicant's admitted prior art.

10. Applicant submitted a series of figures and descriptions of those figures for a "prior art Bosch exhaust gas sensor". See the IDS of 4-12-2004. These figures show an insulation bushing

including a passageway defining a surface (fig. G and H) with a contact plate (fig. I and J) coupled with the insulation bushing (fig. G and H) having a resilient member (compression tab of fig. I and J) extending from the contact plate for insertion into the passageway. This resilient member is engagable with the surface of the passageway during insertion such that the member is deflected by the surface from an undeflected position (fig. I or J) to a deflected position (fig. G and H) with respect to the contact plate.

11. With respect to the contact wire, the admitted prior art also shows contact wires in fig. G, H, I, K, and L. Fig. G and H also show this contact wire being engaged with various surfaces along the bushing.

12. With respect to the bushing including a slot, fig. K shows the presence of alignment tabs on the contact plate. Although the figures do not specify any slots for these alignment tabs, one possessing ordinary skill in the art would recognize that slots would need to be provided on the bushing so that the alignment tabs can perform their apparent function.

13. With respect to the gas sensor claims (those limitations not covered above), the description of fig. B sets forth that this bushing is for a "prior art exhaust gas sensor" and fig. B clearly shows a sensor housing with the gas sensor at least partially enclosed within the housing.

14. With respect to the method of assembling claims (those limitations not covered above), although the description of these drawings does not explicitly disclose inserting the resilient member into the passageway, engaging the resilient member with the surface, and deflecting the resilient member, to get from the unassembled contact plate of fig. I-M to the assembled bushing of fig. G and H would clearly render obvious that the resilient member would need to be inserted into the passageway, and that the resilient member be deflected from its undeflected position of

fig. I and L to its deflected position of fig. G and H, so as to arrive at the assembled bushing of fig. G and H.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein.

17. Stein set forth all the limitations of the claims, but did not explicitly recite what the oblique angle between the first and second surfaces, only that the angle is very acute (see fig. 4). However, the main purpose for the first and second surfaces of Stein is to provide tapered surface so that the resilient member can be compressed prior to full insertion (see fig. 5). One possessing ordinary skill in the art would have been motivated to utilize any number of oblique angles, including between 10 and 12.5 degrees, to achieve the predictable result of having a tapered surface suitable for initiating the compression of the resilient member.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Friday from 8:00 A.M. to 4:30 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1795
November 9, 2007



KAJ K. OLSEN
PRIMARY EXAMINER